



Fact Sheet:

Recycling of Construction and Demolition Wastes

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(FL 33)

The Problem

The U.S. Army engages in a great number of construction, renovation, and demolition projects across the nation. A significant amount of debris resulting from these activities, including concrete, wood, and metals, is currently disposed of in landfills.

Landfilling this debris results in a large loss of natural resources and an increasingly expensive problem for solid waste management. The problem is widespread throughout the United States, with construction and demolition (C&D) debris accounting for an estimated 15 to 30 percent of municipal solid waste. The amount of C&D waste may increase within the U.S. military over the next several years as more buildings are removed under the Base Realignment and Closure (BRAC) initiative and other Department of Defense (DOD) facility reduction programs. In the face of decreasing landfill space and increasing C&D activities, the U.S. military must explore alternatives to the outright disposal of the waste in landfills.

The Technology

The U.S. Army Construction Engineering Research Laboratories (CERL) is currently exploring the opportunities and methods to divert construction materials and other post-consumer wastes from landfills. Research is being performed to investigate concepts for the reutilization of these materials by means of recycling

into new components that will be useful in construction, or by direct salvage and re-use without substantial alteration or processing.

This study is organized around the categories of materials that result from the Department of the Army's (DA's) C&D activities. This study will include a survey of the technologies necessary to divert the debris from the waste stream and recycle it into other building materials.

Benefits/Savings

The major benefits of conducting C&D recycling operations on DOD installations are potentially lower cost materials for military facility construction and reduced volume and cost of disposal of waste materials. There are also other significant benefits such as the conservation of valuable natural resources. DA can also expect several other waste management benefits, including accurate prediction of waste generation rates for building projects, and increased revenue from the sale of the recovered materials.

Status

The first phase of this comprehensive study is the development of an interim report *Concepts for the Recycling of Construction and Demolition Wastes*. This report will address all of the aspects of implementing a recycling operation within DA C&D projects. The interim report will be published in early FY96. The study will also address such issues as a survey of the recyclability of construction and demolition waste, evaluation of construction materials recycling technologies and products, and concepts for reuse of construction materials in construction.

The next phase of the project will be the development of methodologies to support C&D recycling operations, such as a waste generation rate prediction, demolition/dismantlement contract generation, and building dismantlement guidance.

Point of Contact

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